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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,301	07/28/2003	Chih Min Lin	010121-9918	3487
23409	7590	01/14/2005	EXAMINER	
MICHAEL BEST & FRIEDRICH, LLP 100 E WISCONSIN AVENUE MILWAUKEE, WI 53202			LE, DANG D	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/628,301

Applicant(s)

LIN ET AL.

Examiner

Dang D Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 27-33 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,10-17 and 27-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-9 and 30-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 2, 5-9, and 30-33 have been considered but are moot in view of the new ground(s) of rejection.

It is noted that in the art of motor and generator it is well known to support the shaft on only one side of the rotor in order to simplify the manufacture and to expose the stator core in order to reduce heat. See Feiertag et al. (2,589,999), Bertsche et al. (2,928,963), Takeda et al. (5,796,190), Yamano (5,783,888) and Nishitsuji (4,808,085) for only one side bearing support. See Bertsche et al. (2,928,963), Binder (4,286,187), and West (4,797,602) for stator core exposure.

In addition, it is also well known to make the generator work as a motor in order to start the engine or to make the motor work as an alternator in order to produce electricity. See West (4,797,602), Mittmann et al. (5,952,746), Ohmitsu et al. (4,948,997), and Nakamura (6,703,750).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Hansen (2,627,040).

Regarding claim 1, Hansen shows an electric motor comprising:

- A single end frame (left of 300, Figure 4) having a bearing support surface (near 310);
- A stator (300) having a stator core, a first end (left side) fixed relative to the end frame, and a second end (right side) remote from the end frame;
- A bearing (not shown – every motor must have certain type of bearing to support the rotor rotation) substantially engaged with the bearing support surface;
- A shaft (310) supported by the bearing for rotation about a shaft axis;
- A rotor (308) having opposite sides (right and left) spaced in the direction of the shaft axis, the rotor being connected to the shaft for rotation with the shaft relative to the stator, the shaft being supported on only one side (left side) of the rotor for rotation about the shaft axis; and
- A canopy (right component of 300) fixed relative to the end frame (stationary with end frame) and configured to cover at least a portion of the rotor and the second end of the stator during normal operation of the electric motor, a portion of the stator core being exposed between the end frame and the canopy at all times during normal operation of the electric motor, the shaft not being supported by the canopy for rotation about the shaft axis.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 5-8, and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feiertag et al. (2,589,999) in view of Bertsche et al. (2,928,963).

Regarding claim 1, Feiertag et al. shows an electric motor comprising:

- A single end frame (17, Figure 1) having a bearing support surface;
- A stator (11) having a stator core, a first end (right side) fixed relative to the end frame, and a second end (left side) remote from the end frame;
- A bearing (18) substantially engaged with the bearing support surface;
- A shaft (4) supported by the bearing for rotation about a shaft axis;
- A rotor (1) having opposite sides (right and left) spaced in the direction of the shaft axis, the rotor being connected to the shaft for rotation with the shaft relative to the stator, the shaft being supported on only one side (right side) of the rotor for rotation about the shaft axis; and

- A canopy (19) fixed relative to the end frame (17) and configured to cover at least a portion of the rotor and the second end of the stator during normal operation of the electric motor, no portion of the stator core being exposed between the end frame and the canopy at all times during normal operation of the electric motor, the shaft not being supported by the canopy for rotation about the shaft axis.

Feiertag et al. does not show a portion of the stator core being exposed between the end frame and the canopy. There is a heat problem with the motor of Feiertag et al.

Bertsche et al. exposes a portion of the stator core (22) between the end frame (20) and the canopy (21) for the purpose of reducing heat from the stator core.

Since Feiertag et al. and Bertsche et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to expose a portion of the stator core between the end frame and the canopy as taught by Bertsche et al. for the purpose discussed above.

Regarding claims 5-8 and 30-33, it is noted that Feiertag et al. and Bertsche et al. also shows all of the limitations of the claimed invention.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Feiertag et al. in view of Bertsche et al. and further in view of Kashima et al. (6570281).

Regarding claim 2, the motor of Feiertag et al. modified by Bertsche et al. includes all of the limitations of the claimed invention except for the electric motor being

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configured to selectively include one of a first performance specification and a second performance specification, the first performance specification requiring the stator core have a first axial length being exposed between the canopy and the end frame, the second performance specification requiring the stator core have a second axial length being exposed between the canopy and the end frame, and wherein the first axial length is smaller than the second axial length.

Kashima et al. shows stator cores with different performance specification and length for the purpose of reducing cost.

Since Feiertag et al., Bertsche et al., and Kashima et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make stator cores with different performance specification and length as taught by Kashima et al. for the purpose discussed above.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Feiertag et al. in view of Bertsche et al. and further in view of King et al. (5,079,464).

Regarding claim 9, the motor of Feiertag et al. modified by Bertsche et al. includes all of the limitations of the claimed invention except for the shaft being drivingly connected to a fluid pump for pumping fluid through fluid jets in a hydro massage bathtub.

King et al. shows the shaft being drivingly connected to a fluid pump for pumping fluid through fluid jets in a hydro massage bathtub for the purpose of making a whirlpool.

Since Feiertag et al., Bertsche et al., and King et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to connect the shaft to a fluid pump for pumping fluid through fluid jets in a hydro massage bathtub as taught by King et al. for the purpose discussed above.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Information on How to Contact USPTO

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (571) 272-2027. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

1/8/05

DANG LE
PRIMARY EXAMINER

